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EXAMINER

NADKARNI, SARVESH J

ART UNIT	PAPER NUMBER
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2629

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/807,543	Applicant(s) NISHI ET AL.	
	Examiner SARVESH J. NADKARNI	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Amendment filed March 11, 2008, in relation to Application Number: 10/807,543 (hereinafter referred to as “amendment”). No claims have been cancelled or newly added. Claims 17-21 are currently amended. Therefore, claims 1-28 are currently pending subject to the election/restriction explained below.

Election/Restrictions

1. Claims 1-7, 27 and 28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 2, 2007.
2. Applicant’s election without traverse of Group II (claims 8-26) in the reply filed on July 2, 2007 is acknowledged.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 9, 10, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakae et al, United States Patent Application Publication US 2004/0166829 A1 (hereinafter referred to as the “Nakae Publication”) and further in view of Reime (US 6,828,536) hereinafter referred to as Reime.

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5. With regard to claim 8, the Nakae Publication clearly teaches **a portable information tool** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraphs [0032]-[0036], mobile communication terminal 1) **comprising: a first housing** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], subhousing 11) **and a second housing** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], subhousing 12) **coupled together through a hinge portion** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], hinge unit 23) **wherein the first housing includes a first display portion** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], main display unit 13) **and a second display portion** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], sub-display unit 21) **provided on different surfaces** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], sub-display unit 21 is provided on the outside surface the main display unit 13 is on the inside); **wherein the second housing includes an operation portion** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], operating unit 36); **wherein the first display portion and the operation portion are foldable so as to face each other** (see FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033]-[0035], inner and outer surfaces); **and wherein the portable information tool comprises a photodetector** (see page 4, paragraph [0077]).

6. The Nakae Publication differs from the claimed invention in that the Nakae Publication does not fully teach that the photodetector includes **a plurality of detector elements connected in parallel**.

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7. In the same field of endeavor, Reime clearly teaches **a plurality of detector elements connected in parallel** (column 9, lines 47-53 describing photodiodes connected in parallel further illustrated in at least FIG. 2b).

8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the detecting elements as taught by Reime into the device of the Nakae Publication because both are within the same field of endeavor, and furthermore because of the commonly understood benefits as taught by Reime including easier separation of the two sensor regions S1 and S2 and the commercially available and easily attainable design of the structure translating to reduction of costs in manufacturing (see Reime at least at column 9, lines 54-57).

9. With regard to claim 9, the Nakae Publication in view of Reime clearly teaches **the portable information tool according to claim 8, wherein the photodetector is provided in the first housing** (see Nakae Publication FIG. 1C; further described at page 4, paragraphs [0077]-[0078]).

10. With regard to claim 10, the Nakae Publication in view of Reime clearly teaches **the portable information tool according to claim 8, wherein the photodetector is provided in the second housing** (see Nakae Publication FIG. 1C; further described at page 4, paragraphs [0077]-[0078]).

11. With regard to claim 15, the Nakae Publication in view of Reime clearly teaches **the portable information tool according to claim 8 (see above), wherein each of the first display portion and the second display portion is formed by a liquid crystal display device or an EL display device** (see Nakae Publication page 3, paragraph [0057]).

12. With regard to claim 16, the Nakae Publication in view of Reime clearly teaches **the portable information tool according to claim 8** (see above), **wherein the first display portion and the second display portion are formed by a display device capable of emitting light from both surfaces** (see Nakae Publication page 3, paragraph [0057]).

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakae Publication in view of Reime as applied to claim 8 above, and further in view of Koops et al., United States Patent Number US 6,504,143 B1 (hereinafter referred to as “Koops ‘143”).

14. With regard to claim 11, the Nakae Publication in view of Helms ‘992 clearly teaches **the portable information tool according to claim 8** (see above).

15. The Nakae Publication in view of Helms ‘992 differs from the claimed invention in that the Nakae Publication in view of Reime does not fully teach **the photodetector is provided under operation buttons having light-transparent property of the operation portion**.

16. In the same field of endeavor, Koops ‘143 clearly teaches **wherein the photodetector is provided under operation buttons having light-transparent property of the operation portion** (see Koops ‘143, at column 4, lines 24-55, lenses 9 further illustrated in FIG. 1).

17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the operation buttons as taught by Koops ‘143 into the device of Nakae Publication in view of Reime because all are within the same field of endeavor and furthermore, Koops ‘143 clearly improves selection of an operation button, a commonly shared goal within the art (see column 1, lines 33-67).

18. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakae Publication in view of Reime and further in view of Helms, United States Patent Number US 5,952, 992 B2 (hereinafter referred to as “Helms ‘992”)

19. With regard to claim 12, the Nakae Publication in view of Reime clearly teaches **the portable information tool according to claim 8** (see above), **wherein the plurality of detector elements include a first detector element and a second detector element** (as disclosed in Reime, it would be obvious to independently operate the photodetectors as connected in parallel for the commonly understood benefits of operating the device in multiple modes, see Reime at least at column 9, lines 47-57)

20. Nakae Publication in view of Reime does not explicitly teach **wherein the first detector element detects an intensity of illumination on a side of the first display portion in a state where the first housing and the second housing are opened and wherein the second detector element detects an intensity of illumination on a side of the second display portion in a state where the first housing and the second housing are folded.**

21. In the same field of endeavor, Helms ‘992 clearly teaches **wherein the first detector element detects an intensity of illumination on a side of the first display portion in a state where the first housing and the second housing are opened** (see Helms ‘992 column 4, lines 40-67 further illustrated in FIG. 4) **and wherein the second detector element detects an intensity of illumination on a side of the second display portion in a state where the first housing and the second housing are folded** (see Helms ‘992 column 4, lines 40-67; it would be obvious to one having ordinary skill in the art at the time the invention was made that the second detector is capable of detecting ambient light when apparatus is folded).

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22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the detecting elements as taught by Helms '992 into the device of the Nakae Publication because both are within the same field of endeavor, and furthermore because of the commonly understood benefits as taught by Helms '992, including automated lighting controls, conserved battery power, extended periods of use between battery charging, and a generally improved user-friendly application (see Helms '992 at column 2, lines 8-50).

23. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakae Publication in view of Reime in view of Helms '992 and further in view of Nakamura, United States Patent Number US 6,269, 256 B1 (hereinafter referred to as "Nakamura '256").

24. With regard to claim 13, the Nakae Publication in view of Reime in view of Helms '992 clearly teaches **the portable information tool according to claim 8 (see above), wherein the plurality of detector elements include a first detector element and a second detector element** (see Helms '992 column 4, lines 40-67 describing a first photodetector 14' and a second photodetector 410; illustrated in FIG. 4); **wherein the first detector element detects an intensity of illumination on a side of the first display portion in a state where the first housing and the second housing are opened** (see Helms '992 column 4, lines 40-67); **and the second detector element detects an intensity of illumination on a side of the second display portion in a state where the first housing and the second housing are folded** (see Helms '992 column 4, lines 40-67, capable of detecting ambient light when apparatus is folded).

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25. The Nakae Publication in view of Reime in view of Helms '992 does not fully teach **the first detector element detects the brilliance in the first display portion where the first housing and the second housing are folded.**

26. In the same field of endeavor, Nakamura '256 clearly teaches **the first detector element detects the brilliance in the first display portion where the first housing and the second housing are folded** (see Nakamura '256 describing a light-emitting and light detection portions 1 and 2 respectively further describing light detection folded at column 3, lines 20-64, further illustrated in FIGs. 2A and 2B).

27. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the light detection as taught by Nakamura '256 into the device of the Nakae Publication in view Reime in view of Helms '992 because all are within the same field of endeavor, and additionally because Nakamura '256 clearly provides a method of optical detection to improve power consumption a commonly shared goal within the art (see Nakamura '256 at column 2, lines 36-42).

28. With regard to claim 14, the Nakae Publication in view of Reime in view of Helms '992 and further in view of Nakamura '256 clearly teaches **the portable information tool according to claim 8** (see above), **wherein the plurality of detector elements include a first detector element, a second detector element** (see Helms '992 column 4, lines 40-67 describing a first photodetector 14' and a second photodetector 410; illustrated in FIG. 4) **and a third detector element** (see Nakamura '256 describing a light-emitting and light detection portions 1 and 2 respectively further describing light detection folded at column 3, lines 20-64, further illustrated in FIGs. 2A and 2B); **wherein the first detector element detects an intensity of illumination**

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on a side of the first display portion in a state where the first housing and the second housing are opened (see Helms '992 column 4, lines 40-67); **and wherein the second detector element detects an intensity of illumination on a side of the second display portion** (see Helms '992 column 4, lines 40-67 capable of detecting illumination when folded) **and the third detector element detects a brilliance of the first display portion in a state where the first housing and the second housing are folded** (see Nakamura '256 describing a light-emitting and light detection portions 1 and 2 respectively further describing light detection folded at column 3, lines 20-64, further illustrated in FIGs. 2A and 2B).

29. Claims 17, 18, 19, 22, 23, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakae Publication in view Reime in view of Helms '922.

30. With regard to claim 17, the Nakae Publication in view Reime in view of Helms '992 clearly teaches **a portable information tool** (see Nakae Publication FIGs. 1A, 1B and 1C, further described on page 2, paragraphs [0032]-[0036], mobile communication terminal 1) **comprising: a first housing including a first display portion and a second display portion on different surfaces** (see Nakae Publication FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], subhousing 11, main display unit 13, sub-display unit 21) **and a second housing including an operation portion** (see Nakae Publication FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], subhousing 12, operating unit 36) **coupled together through a hinge portion** (see Nakae Publication FIGs. 1A, 1B and 1C, further described on page 2, paragraph [0033], hinge unit 24), **a first means for detecting an intensity of illumination on a side of the first display portion in a state where the first housing and the**

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second housing are opened (see Helms '992 column 3, lines 1-9, and continued at lines 57-67 describing photodetector 14 further illustrated in FIG. 1) ; **a second means for displaying by controlling a brilliance of the first display portion depending upon a result detected by the first means** (see Helms '992, column 3, lines 18-67 and continued at column 4, lines 1-40, microprocessor 204a makes this determination; see additionally FIGs. 1 and 3); **a third means for detecting an intensity of illumination on a side of the second display portion in a state where the first housing and the second housing are folded** (see Helms '992 column 4, lines 40-67, describing second photodetector 410; the device is shown as being folded in FIG. 4; and see Nakae Publication for the second display FIGs. 1A-C); **and a fourth means for displaying by adjusting a brilliance of the second display portion depending upon a result detected by the third means** (see Helms '992, column 4, lines 40-67 and continued at column 5, lines 1-30, microprocessor 204a makes this determination; see additionally FIGs. 1 and 3) **wherein the first and third means are connected in parallel** (see Reime at least at column 9, lines 47-57 and further at FIG. 2b).

31. With regard to claim 18, the Nakae Publication in view Reime in view of Helms '992 clearly teaches **the portable information tool according to claim 17** (see above), **wherein the first means and the third means are provided in the first housing** (it is obvious matter of engineering design choice to one having ordinary skill in the art at the time the invention was made to place the microprocessor as disclosed by Helms '992 in the first or second housing).

32. With regard to claim 19, the Nakae Publication in view of Reime in view of Helms '992 clearly teaches **the portable information tool according to claim 17** (see above), **wherein the first means and the third means are provided in the second housing** (it is obvious matter of

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engineering design choice to one having ordinary skill in the art at the time the invention was made to place the first and third means in various locations within the device to provide the expected results of such an adaptation).

33. With regard to claim 22, the Nakae Publication in view of Helms '992 **the portable information tool according to claim 17** (see above), **wherein each of the first display portion and the second display portion is formed by a liquid crystal display device or an EL display device** (see Nakae Publication page 3, paragraph [0057]).

34. With regard to claim 23, the Nakae Publication in view of Reime of Helms '992 **the portable information tool according to claim 17** (see above), **wherein the first display portion and the second display portion are formed by a display device capable of emitting light from both surfaces** (see Nakae Publication page 3, paragraph [0057]).

35. With regard to claim 24, it is similarly analyzed as claim 17 above, and rejected under the same rationale (the method of displaying the foldable information tool would have been obvious to one having ordinary skill in the art at the time the invention was made).

36. With regard to claim 26, it is similarly analyzed as claims 17 and 24 above and rejected under the same rationale (the method of displaying the foldable information tool would have been obvious to one having ordinary skill in the art at the time the invention was made; the variations between claims 24 and 26 are merely engineering design choices resulting in the various structural differences and would be obvious to try for one of ordinary skill in the art as they would prove to produce the expected results).

37. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakae Publication in view of Reime in view of Helms '992 as applied to claim 17 above, and further in view of Koops '143.

38. With regard to claim 20, the Nakae Publication in view of Reime in view of Helms '992 clearly teaches **the portable information tool according to claim 17 (see above) the first means and the third means are provided under operation buttons** (see claim 18, it would be an obvious matter of engineering design choice to place the first and third means under operation buttons).

39. The Nakae Publication in view of Reime in view of Helms '992 does not explicitly teach **operation buttons having light-transparent property of the operation portion.**

40. In the same field of endeavor, Koops '143 clearly teaches **the first means and the third means are provided under operation buttons having light-transparent property of the operation portion** (see Koops '143 at column 4, lines 24-55, lenses 9 further illustrated in FIG. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the operation buttons as taught by Koops '143 into the device of Nakae Publication in view of Reime in view of Helms '992 because all are within the same field of endeavor and furthermore, Koops '143 clearly improves selection of an operation button, a commonly shared goal within the art (see column 1, lines 33-67).

41. Claims 21 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over the Nakae Publication in view of Reime in view of Helms '992 as applied to claim 17 above, and further in view of Nakamura '256.

42. With regard to claim 21 the Nakae Publication in view of Helms '992 clearly teaches **the portable information tool according to claim 17** (see above).

43. The Nakae Publication in view of Helms '992 differs from the claimed invention in that the Nakae Publication in view of Helms '992 does not fully teach **a fifth means for making the first display portion display and detecting a brilliance thereof in a state where the first housing and the second housing are folded; and a sixth means for displaying by controlling the brilliance of the first display portion depending upon a result detected by the fifth means and the result detected by the first means.**

44. In the same field of endeavor, Nakamura '256 clearly teaches **a fifth means for making the first display portion display and detecting a brilliance thereof in a state where the first housing and the second housing are folded** (see Nakamura '256 describing a light-emitting and light detection portions 1 and 2 respectively further describing light detection when folded at column 3, lines 20-64, further illustrated in FIGs. 2A and 2B and in FIG. 3); **and a sixth means for displaying by controlling the brilliance of the first display portion depending upon a result detected by the fifth means and the result detected by the first means** (see Nakamura '256, FIG. 4, the circuit control system 31 further described at column 4, lines 50-64 and in correlation with FIG. 3).

45. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the control and detection system as taught by Nakamura '256 into the device of the Nakae Publication in view Reime in view of Helms '992 because all are within the same field of endeavor and furthermore because

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Nakamura '256 clearly provides a method of optical detection to improve power consumption, which is a commonly shared goal within the art (see Nakamura '256 at column 2, lines 36-42).

46. With regard to claim 25, it is similarly analyzed as claim 21 above and rejected under the same rationale (the method of displaying the foldable information tool would have been obvious to one having ordinary skill in the art at the time the invention was made).

Response to Arguments

47. Applicant's arguments with respect to claims 8-26 have been considered but are moot in view of the new grounds of rejection as described above by the incorporation of Reime.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARVESH J. NADKARNI whose telephone number is (571)270-1541. The examiner can normally be reached on 11AM-7PM EST Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sarvesh J. Nadkarni
Examiner – Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629